

WHAT IS CLAIMED IS:

1. A truss fabrication system for use in fabricating trusses from truss components including truss members and connectors joining the truss members together, the truss fabrication system comprising:

a truss set-up table including a substantially horizontal table deck having a side edge, and extension arms projecting generally horizontally outward from the side edge, the extension arms being spaced apart from each other along the table deck side edge, the extension arms and table deck side edge defining at least one work bay sized to permit a worker to pass into the work bay to the table deck side edge for manipulating the truss components on the table deck; and

a gantry press movable relative to the truss set-up table, the gantry press being sized and arranged relative to the truss set-up table for pressing connectors into truss members supported on the table deck and for pressing connectors into truss members supported on the extension arms.

2. A truss fabrication system as set forth in claim 1 wherein the gantry press is sized and arranged relative to the truss set-up table for simultaneously pressing connectors into truss members supported on the table deck and the connectors into truss members supported on the extension arms.

3. A truss fabrication system as set forth in claim 2 further comprising guides for guiding the movement of the gantry press relative to the truss set-up table, the guides being located out of registration with the work bay.

4. A truss fabrication system as set forth in claim 3 wherein the guides are mounted on the truss set-up table.

5. A truss fabrication system as set forth in claim 4 wherein one of the guides is located adjacent to the table deck side edge.

6. A truss fabrication system as set forth in claim 3 wherein the guides are located generally on opposite sides of the table deck, the gantry press comprising a gantry, a cylindric roller rotatably mounted on the gantry sized for engaging connectors to press the connectors into truss members supported on the table deck and supported on the extension arms, a motor for powering rotation of the roller, and guide wheels engaging the guides for guiding motion of the gantry press.

7. A truss fabrication system as set forth in claim 6 one side of the gantry includes a spacer connected to one of the guide wheels and arranged to extend under the extension arms to position said one guide wheel for engagement with one of the guides.

8. A truss fabrication system as set forth in claim 1 wherein the extension arms define a first work zone and the table deck defines a second work zone, each work zone being configured to hold connectors and truss members in position for the gantry press to simultaneously press connectors into truss members.

9. A truss fabrication system as set forth in claim 8 wherein the table deck further comprises a third work zone configured to hold connectors and truss members in position for the gantry press to press connectors into truss members in the third work zone simultaneously with pressing connectors into truss members in the first and second work zones.

10. A truss fabrication system as set forth in claim 9 wherein the work zones are configured to assemble trusses in stages as the truss proceeds laterally through each work zone, wherein the first work zone is configured to splice certain of the truss members together, the second work zone is configured to press connectors on a first side of the truss into truss members to connect the truss members together, and the third work zone is configured to press connectors on a second side of the truss into the truss members.

11. A truss fabrication system as set forth in claim 10 wherein the truss set-up table comprises a flipper arm positioned for flipping the truss over from the second work zone to the third work zone.

12. A truss fabrication system as set forth in claim 11 wherein said truss set-up table further comprises a clamping system configured to selectively clamp the truss members in the second and third work zones on the table deck.

13. A truss fabrication system as set forth in claim 8 wherein the extension arms have upper surfaces for engaging and supporting truss components in the first work zone, the upper surfaces being located at a vertical height greater than the height of the table deck in the second work zone.

14. A truss fabrication system as set forth in claim 8 wherein the first work zone includes the work bay, the extension arms being adapted to hold truss members spanning adjacent extension arms through the work bay.

15. A truss fabrication system as set forth in claim 1 wherein the extension arms have upper surfaces for engaging and supporting truss components, the upper surfaces being located at a vertical height greater than the height of the table deck.

16. A truss fabrication system as set forth in claim 15 wherein the upper surfaces of the extension arms are located between about 1 and 3 inches above the table deck.

17. A truss fabrication system as set forth in claim 1 wherein the extension arms define multiple work bays along the table deck side edge.

18. A truss fabrication system as set forth in claim 1 wherein the gantry press further comprises a bearing surface engagable with a surface of an extension arm to support the extension arm as the gantry press presses connectors into truss members supported on the extension arm.

19. A truss fabrication system for use in fabricating trusses from truss components including truss members and connectors joining the truss members together, the truss fabrication system comprising:

a truss set-up table including a substantially horizontal table deck having a side edge, extension arms projecting generally horizontally outward from the side edge, the extension arms being spaced apart from each other along the table deck side edge, the extension arms and table deck side edge defining at least one work bay sized to permit a worker to pass into the work bay to the table deck side edge for manipulating the truss components on the table deck, a clamping system for holding truss members in place prior to their interconnection by the connectors, and a flipper arm to turn the trusses over on the table deck;

the extension arms defining a first work zone including the work bay for splicing truss members together, the table deck defining a second work zone for receiving spliced truss members and connectors for forming a truss subassembly, and a third work zone positioned to receive the truss subassembly from the first work zone when turned over by the flipper arm; and

a gantry press comprising a cylindric roller, a gantry mounting the roller and guide wheels, the gantry press being movable relative to the truss set-up table and the roller being sized to simultaneously roll over and press connectors into truss members on the table deck and to press connectors into truss members on the extension arms, and a spacer connected to the gantry and being arranged for extending under the extension arms to position one of the guide wheels generally under the table deck.

20. A truss fabrication system as set forth in claim 19 wherein the gantry press further comprises a bearing surface engagable with a surface of an extension arm to support the extension arm as the gantry press presses connectors into truss members supported on the extension arm.

21. A method of assembling trusses from truss components including truss members and connectors, the method comprising:

manually arranging truss members including spliced truss members on a table deck of a truss set-up table in the desired shape of a truss from a location adjacent the table deck and between extension arms projecting laterally outward from the table deck;

manually positioning connectors from the location between extension arms adjacent the table deck so that the connectors overlie the truss members;

arranging truss members on the extension arms such that at least one of the truss members extends between the extension arms through the location from which the spliced truss members and connectors were previously positioned on the table deck;

positioning connectors on upward facing surfaces at intersections of the truss members generally overlying the extension arms; and

pressing the connectors into the truss members with a gantry press to form on the table deck a first truss subassembly with connectors pressed on a first side of the first truss subassembly and to form spliced truss members on the extension arms.

22. A method of assembling trusses as set forth in claim 21 further comprising:

flipping the first truss subassembly on the table deck to a laterally adjacent zone of the table deck so that the first side with pressed in connectors is facing the table deck;

manually positioning connectors so that the connectors overlie the spliced truss members of the first truss subassembly;

moving the spliced truss members from the extension arms to the table deck;

manually arranging the spliced truss members with other truss members on the table deck in the desired shape of a truss from a location adjacent the table deck and between extension arms projecting laterally outwardly from the table deck;

manually positioning connectors from a location between extension arms adjacent the table deck so that the connectors overlie truss members in a second truss subassembly;

arranging truss members on the extension arms such that at least one of the truss members extends between the extension arms through the location from which the spliced truss members and connectors were previously positioned on the table deck;

positioning connectors on upward facing surfaces at intersections of the truss members generally overlying the extension arms; and

pressing the connectors into the truss members with the gantry press to form a truss from the first truss subassembly with connectors pressed on

both of the first and second sides of the truss, a second truss subassembly with connectors pressed on a first side of the second truss subassembly, and spliced truss members.